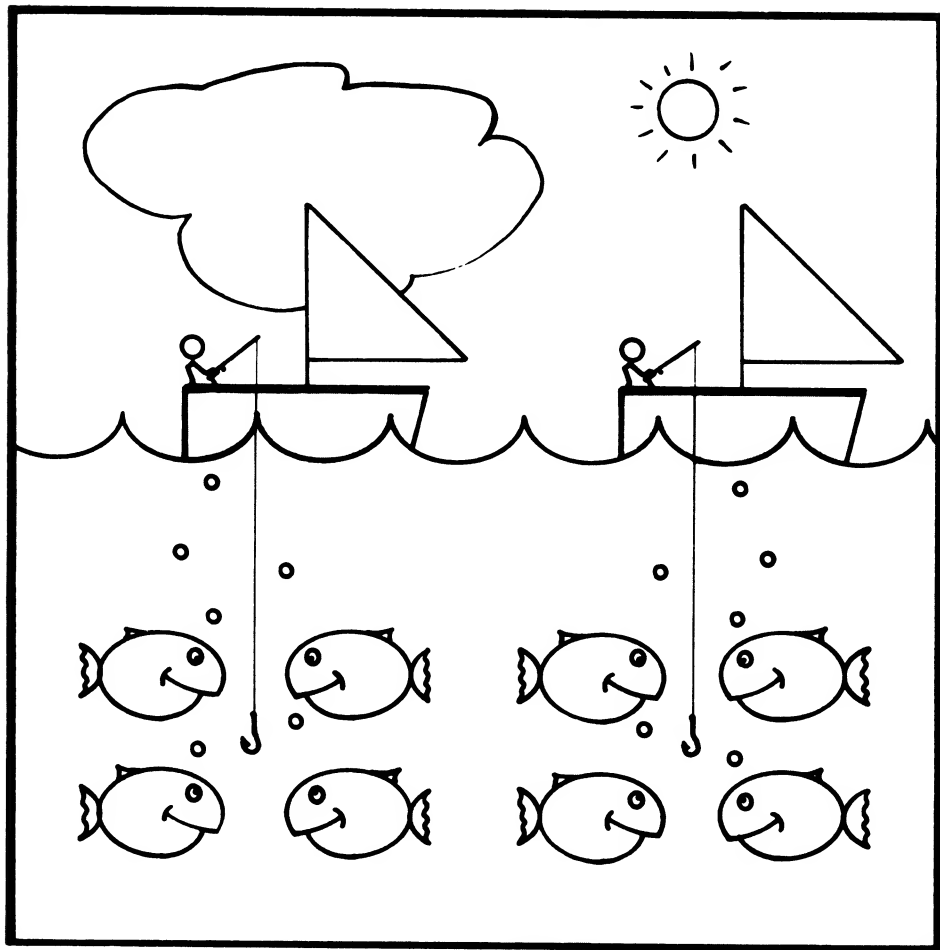


microDivision



Introduction

Go fishin' to learn division! **microDivision** teaches you the values of numbers, shows you how to divide, quizzes you on the division you have studied, and has a calculator that can help you correct your math homework.

microDivision has four options. In option one, fish show you the values of the numbers one through nine. Option two asks you to count the fish you see on the screen. In option three the fish help explain division. Option four gives you a quiz on division problems through the 12's table and lets you use the **microDivision** calculator to get answers to your division problems or check your homework.

Ages: 4-10

Required Hardware

Tape Version: Atari 4/8/1200 with 16K RAM, Atari BASIC Language Cartridge, Atari 410 Program Recorder.

Disk Version: Atari 8/1200 with 24K RAM, Atari BASIC Language Cartridge, Atari 810 Disk Drive.

Making Back-up Copies

For your convenience, your **microDivision** program has not been copy protected. We suggest that you follow the instructions in your Atari reference manual to make a back-up copy of the program for your personal use.*

Directions

Tape Version

1. Be sure your computer is turned OFF.
2. Insert the BASIC Language Cartridge into the computer's cartridge slot.
3. Insert the **microDivision** tape into the program recorder's cassette holder. Press **REWIND** on the recorder until the tape rewinds completely, then press **STOP**.
4. Turn on the computer and the TV or monitor.
5. Using the computer's keyboard, type **CLOAD** then press **RETURN**.
6. Press **PLAY** on the program recorder, then press **RETURN** on the computer's keyboard. Please wait 5 minutes for the program to load.

***Note:** Please remember that this program is copyrighted material. Making copies for any purpose other than your personal use is illegal and unethical. We at Hayden Software recognize that it is especially important to you to have a convenient and inexpensive means of obtaining back-up copies of software which will be handled by young children. We ask in return that you cooperate with the intention of this policy by making copies only for your family on the computer for which the program was purchased.

7. When the word **READY** appears on the screen, **STOP** the recorder. Type **RUN** on the keyboard and press **RETURN**.

Disk Version

1. Be sure your computer is turned **OFF**.
2. Insert the **BASIC Language Cartridge** into the computer's cartridge slot.
3. Turn on the disk drive.
4. When the busy light on the disk drive goes out, open the drive door. Insert the **microDivision** disk with the label in the lower right-hand corner nearest you. Close the door.
5. Turn on the computer and your TV or monitor. The program will load and run automatically.

The title screen now appears. In a few moments, the menu showing your game options will be displayed on the screen. Choose an option by typing its corresponding number.

Game Options

1. Fish
2. Numbers
3. Dividing fish
4. Dividing numbers

1. Fish: Number Values

To see number values, type “1” when the menu is displayed on the screen.

A boat and the message HOW MANY FISH TO SWIM? appear on the screen. Type in the number (from 1–9) of fish you want to see. One by one, the fish swim in and are counted.

After the school of fish is correctly counted, the exercise is repeated. The boat and message are shown again. Type any number and that number of fish swim in and are counted for you.

You are shown how many fish a number stands for. You can see for yourself whether 8 is more or fewer than 6.

When you wish to stop playing FISH, press the RETURN key. The menu appears on the screen and you may choose another option.

2. Numbers: Counting

To practice counting, type “2” when the menu is displayed on your screen.

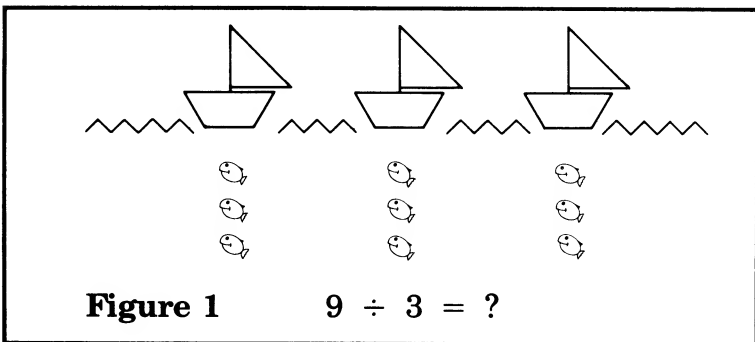
A boat, fish in the water, and the message HOW MANY FISH? are seen on the screen. When the “?” appears in the upper right of your screen, count the fish and then type the number you think there are. If you are right, a glad tune plays and the fish are counted. A wrong answer produces an unhappy tune, but you get two more chances. If you still don’t count the fish correctly, that’s okay; the computer shows you the right answer.

When you wish to stop playing NUMBERS, just press the RETURN key. The menu appears on the screen and you may choose another option.

3. Dividing Fish

To see how to divide, type “3” when the menu is displayed on your screen.

The message HELP WITH FISH? appears on the screen, asking you if you wish to play with or without extra help. If you type “Y”,* the following fishing scene appears on your screen, with the example to be solved shown below it.

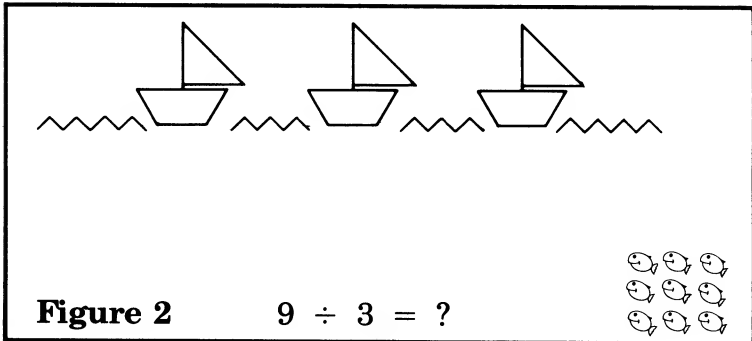


The objective is to divide the school of fish by the number of boats. Because you asked for help, an equal number of fish line up under each boat so that you may count the number of fish under one boat to get the correct answer.

Wait for all the fish to finish moving, then type your answer. If you are correct, a cheerful tune plays. If you are incorrect, an unhappy tune plays, but you get two more chances. The correct answer is given if you still don't get it.

***Note:** The (CAPS/LOWR) key must be in the up position when you type in “Y” or “N”.

If you type “N” in response to the message **HELP WITH FISH?**, the same fishing scene is displayed, but the fish remain grouped on the right.



You must type the number of fish you think should appear under each boat. If you are right, a joyful tune plays and the correct number of fish move under each boat. If you are wrong, a mournful tune plays, but you get two more chances. The correct answer is given if you still don't get it.

When you wish to stop playing **DIVIDING FISH**, just press the **RETURN** key. The menu appears on the screen and you may choose another option.

4. Dividing Numbers

To take a division quiz or use the **microDivision** calculator, type “4” when the menu is displayed on the screen. The message **QUIZ OR CALCULATOR?** then appears.

Quiz

If you choose to take a quiz, type “Q” in response to the message QUIZ OR CALCULATOR?.* A division example and two boats with a fish under each appear on the screen. Type in your answer to the example, and the problem will be worked out for you.

Whenever the number in the example is not evenly divisible, type in the number that is closest to but less than the answer. The computer calculates the remainder and then displays it. For example, in the following problem the only numbers *you* need enter are the 1, then the 2, of the answer:

$$\begin{array}{r} 4 \overline{) 51} \quad \rightarrow \quad 4 \overline{) 51} \quad \rightarrow \quad 4 \overline{) 51} \quad \begin{array}{l} 12 \text{ rem } 3 \\ 12 \\ \hline 3 \end{array} \\ \quad \quad \quad \begin{array}{r} 1 \\ \hline 4 \\ \hline 11 \end{array} \end{array}$$

If your answer is correct, a merry melody plays and the fish on the left swims up to the boat and is caught. If your answer is incorrect, a sad tune plays, but you are given two more chances. If you still miss the answer, the fish on the right is caught and the computer provides the correct answer for you.

The computer tallies your right and wrong answers on the screen as you take the quiz. The problems get more difficult as you play. The most difficult problem you will get is $12 \overline{) 108}$.

***Note:** The (CAPS/LOWR) key must be in the up position when you type “Q” or “C”.

When you are finished with the quiz, press the RETURN key. You are given your final score. Please wait a moment and you will return to the menu.

Calculator

If you decide to use the **microDivision** calculator, type "C" in response to the message QUIZ OR CALCULATOR?. Instructions appear at the bottom of the screen.

In a division problem, the dividend is the number you are dividing, the divisor is the number you are dividing by, and the quotient is the answer.

$$\begin{array}{r} \text{Quotient} \\ \text{Divisor } \overline{) \text{Dividend}} \end{array}$$

Type in a dividend (the number you want to divide) with as many as 5 digits (any number from 0 through 99,999). Press the space bar. Then type in the divisor (the number you want to divide by). This number may also have as many as 5 digits, but must be greater than zero. Press the space bar and in a few seconds the **microDivision** calculator will give you the correct quotient. The remainder is shown if it is not zero.

Press the ESCAPE key to begin a new division problem. Use the **microDivision** calculator to check your homework!

When you are finished using the calculator, press the RETURN key to return to the menu.

Don't Forget

Whenever you wish to return to the menu to try another option, press the RETURN key.

If you have the disk version of **microDivision**, make sure the red busy light on the disk drive is off before you remove the disk.

Now that you're a super divider, try the rest of the **microMath** series. In **microAddition**, apples teach you how to add. In **microSubtraction**, birds show you how to subtract. In **microMultiplication**, bunnies help you learn the times tables. All of them are fun!

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